

PROJECT DESCRIPTION

I. GENERAL

This project involved the installation of the Uninterruptible Power Supply (UPS) system for the existing traffic signal system at the intersection of US 50 and MD 309 (Black Dog Alley/ Airport Road) in Talbot County. US 50 is assumed to run in an east-west direction.

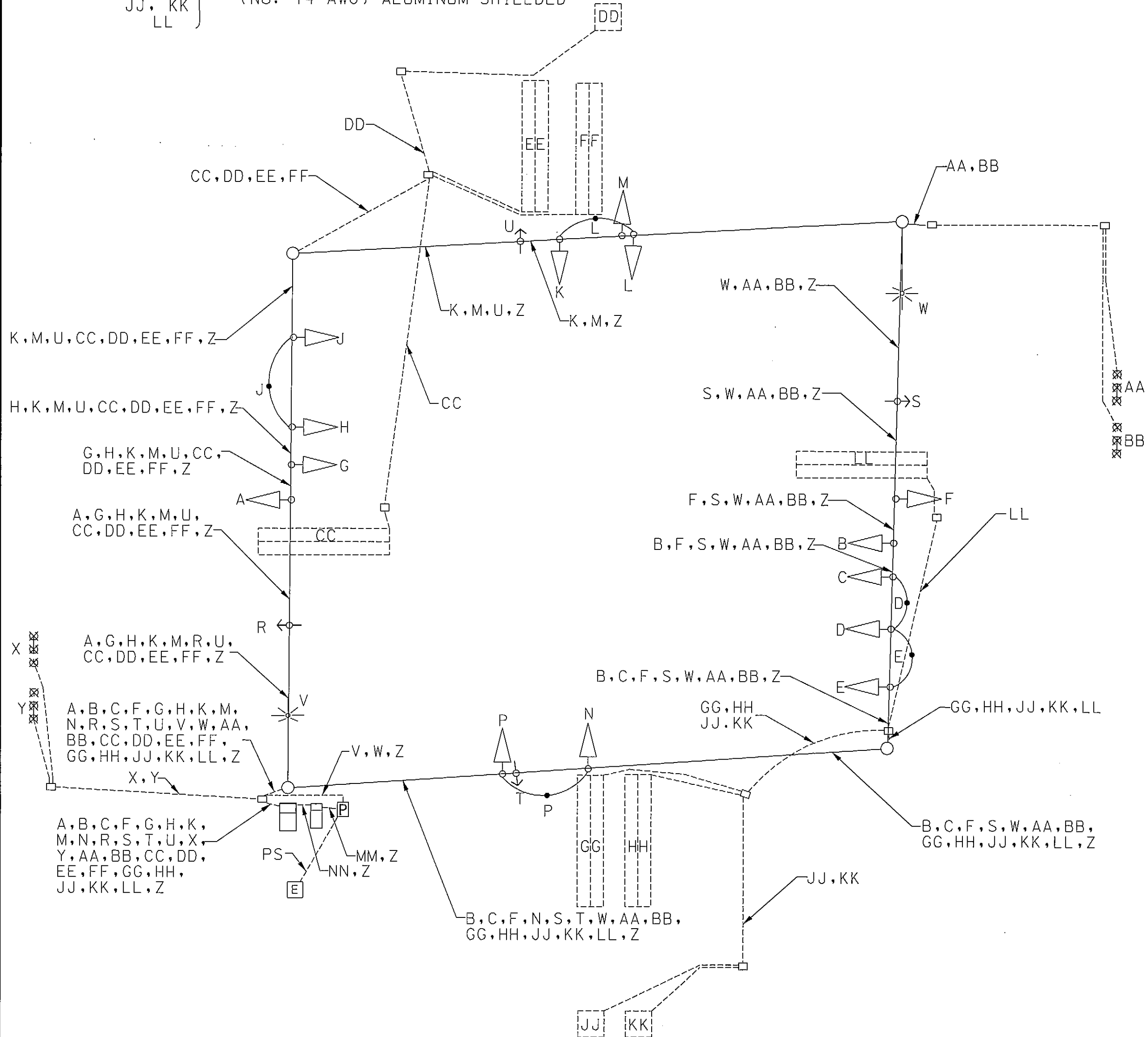
II. INTERSECTION OPERATION

The intersection operates in a NEMA seven-phase, full-traffic-actuated mode. There are exclusive left-turn phases for East and Westbound US 50 and an exclusive-permissive left turn phase for southbound MD 309 (Black Dog Alley). This intersection uses a base mounted signal cabinet and UPS cabinet.

WIRING DIAGRAM

KEY

C,H K,M N	7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)	NN	1 CONDUCTOR (NO. 8 AWG)
A,B D,E F,G J,L P	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)	MM	3 WIRE, 1 CONDUCTOR (NO. 4 AWG) THHN/ THWN
R,S T,U	4 CONDUCTOR OPTICOM CABLE	X Y AA BB	MICROLOOP PROBE LEAD-IN
V W	2 CONDUCTOR ELECTRICAL CABLE (NO. 12 AWG) TRAY CABLE	Z	1 CONDUCTOR (NO. 6 AWG) STRANDED COPPER GROUND WIRE
CC, DD EE, FF GG, HH JJ, KK LL	2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG) ALUMINUM SHIELDED	PS	POWER SERVICE



PHASE CHART

1	2	3	4	5	6	7	8	9	10	11	12	13	14
←R→	←Y→	←G→	←R→	←Y→	←G→	←R→	←Y→	←G→	←R→	←Y→	←G→	←R→	←Y→
←G→	←Y→	←R→	←G→	←Y→	←R→	←G→	←Y→	←R→	←G→	←Y→	←R→	←G→	←Y→

PHASE 1 AND 5	←G→	←G→	R	R	R	←G→	←G→	R	R	R	R	R	R
1 AND 5 CHANGE TO 1 AND 6, 2 AND 5, OR 2 AND 6													
PHASE 1 AND 6	←G→	←G→	G	G	G	←R→	←R→	R	R	R	R	R	R
1 AND 6 CHANGE	←Y→	←Y→	G	G	G	←R→	←R→	R	R	R	R	R	R
PHASE 2 AND 5	←R→	←R→	R	R	R	←G→	←G→	G	G	R	R	R	R
2 AND 5 CHANGE	←R→	←R→	R	R	R	←Y→	←Y→	G	G	R	R	R	R
PHASE 2 AND 6	←R→	←R→	G	G	G	←R→	←R→	G	G	R	R	R	R
2 AND 6 CHANGE	←R→	←R→	Y	Y	Y	←R→	←R→	Y	Y	R	R	R	R
PHASE 4 AND 7	←R→	←R→	R	R	R	←R→	←R→	R	R	R	R	←GG→	←GG→
4 AND 7 CHANGE	←R→	←R→	R	R	R	←R→	←R→	R	R	R	R	←YY→	←YY→
PHASE 4 AND 8	←R→	←R→	R	R	R	←R→	←R→	R	R	G	G	G	G
4 AND 8 CHANGE	←R→	←R→	R	R	R	←R→	←R→	R	R	Y	Y	Y	Y
FIREHOUSE PRE-EMPTION #1	←R→	←R→	R	R	R	←G→	←G→	G	G	R	R	R	R
FIREHOUSE PRE-EMPTION #1 CHANGE	←R→	←R→	R	R	R	←Y→	←Y→	Y	Y	R	R	R	R
FIREHOUSE PRE-EMPTION #2	←G→	←G→	G	G	G	←R→	←R→	R	R	R	R	R	R
FIREHOUSE PRE-EMPTION #2 CHANGE	←Y→	←Y→	Y	Y	Y	←R→	←R→	R	R	R	R	R	R
FIREHOUSE PRE-EMPTION #3	←R→	←R→	R	R	R	←R→	←R→	R	R	R	R	←GG→	←GG→
FIREHOUSE PRE-EMPTION #3 CHANGE	←R→	←R→	R	R	R	←R→	←R→	R	R	R	R	←YY→	←YY→
FIREHOUSE PRE-EMPTION #4	←R→	←R→	R	R	R	←R→	←R→	R	R	G	G	R	R
FIREHOUSE PRE-EMPTION #4 CHANGE	←R→	←R→	R	R	R	←R→	←R→	R	R	Y	Y	R	R
FLASHING OPERATION	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R



STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
US 50 AND MD 309  
(BLACK DOG ALLEY ROAD /AIRPORT ROAD)  
EASTON, MARYLAND

GENERAL INFORMATION SHEET

SCALE N.T.S. ADVERTISED DATE FEBRUARY 2010 CONTRACT NO. T-323-501-285

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